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GEOGRAPHICAL NEWS

THE JOURNAL OF GEOGRAPHY

A MAGAZINE FOR TEACHERS

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The JOURNAL of GEOGRAPHY

VOLUME XX JANUARY, 1921 NUMBER 1

THE PROBLEM OF COMMUNICATION IN THE LOWER ST. LAWRENCE VALLEY

RODERICK PEATTIE

Department of Geology, Ohio State University, Columbus

The individuality of people depends in no small degree upon the ease with which they can pass to and from their province to the world at large. Also, upon the ease or difficulty of communication between different portions of a single province, depends, to a great extent, the development of local characteristics, the preservation of ancestral traits, and the degree of economic independence. Modern transportation is responsible for much of the loss of character of the Lower St. Lawrence communities, as it is in all other parts of the world. In the 18th century Dr. Johnson was deploring the fact that "commerce has left the people no singularities." It was not until the last decade in the 19th century that commerce so perfected transportation that the communities of the North Shore were opened to cultural contacts and, indeed, many of the settlements are scarcely touched yet. To us, in the modern world of commerce, individuality results from a personal choice of environment. Life is no longer local or accidental, but a matter of choice. With the French Canadian the environment settled down upon his life much as the snow enshrouds the countryside. This was in a large measure a matter of the difficulty of communication. Without going into a retrospect of history, we may venture to comment upon the obstacles to an interchange of commerce and ideas which exist at the present time.

THE WATER COMMUNICATION

The water communication of the Lower St. Lawrence is essentially that of an inland sea. The two shores know less of each other than they do of Quebec. There are some portions of Quebec Labrador that are exceptions to this. They are so far from Quebec as to have considerable communication with the South Shore, whence they derive their products of civilization. During the summer months periodically, large freight and trading steamers make the longer journey to and from Quebec. Strangely enough, altho the Lower St. Lawrence is

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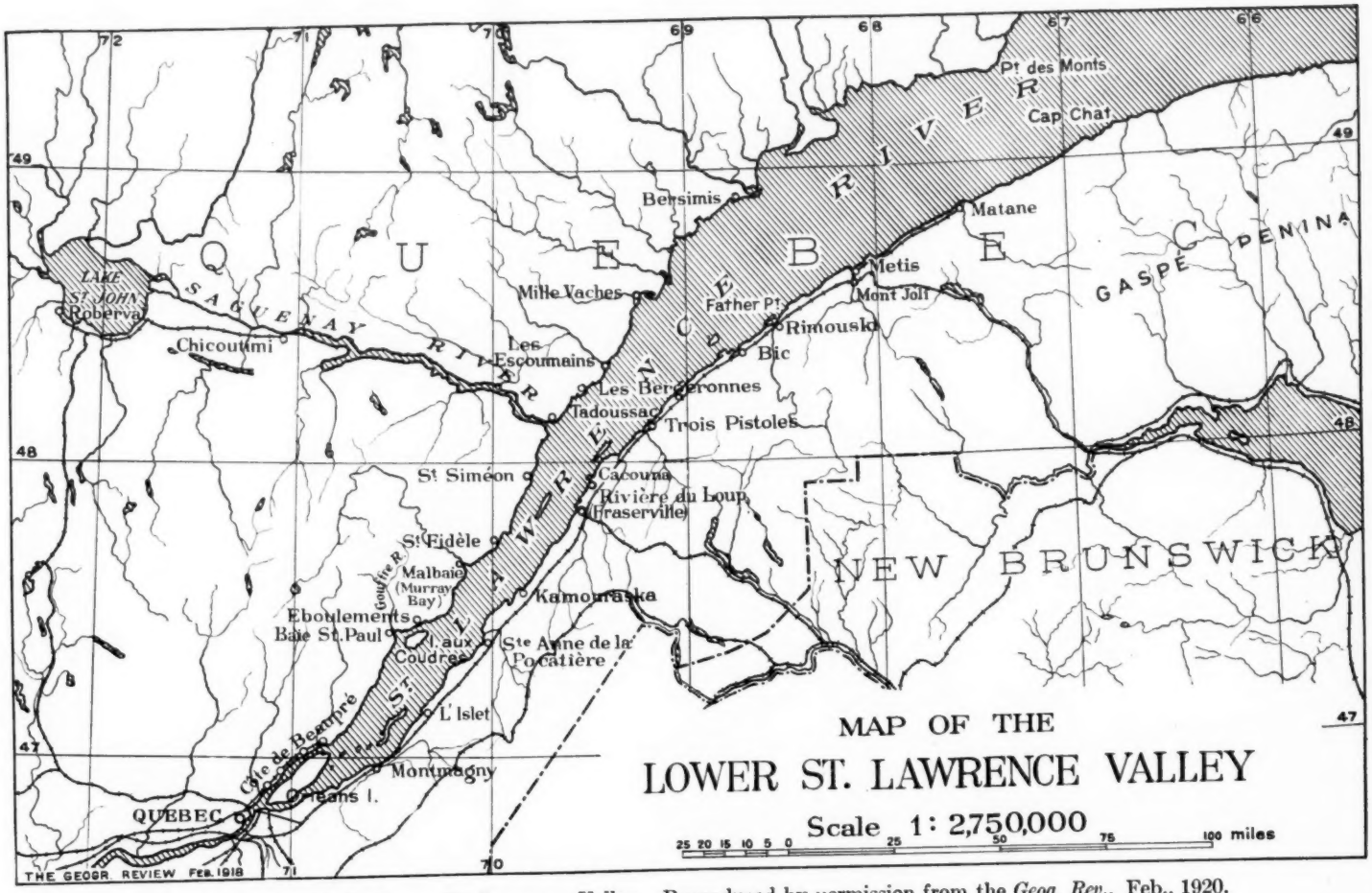

FIGURE I. Map of the Lower St. Lawrence Valley. Reproduced by permission from the *Geog. Rev.*, Feb., 1920.

one of the world's great commercial highways, the region has poor or imperfect coast-wise communication. The principal factor in this is the climate. Quebec is a closed port for almost five months of the year, and a dangerous one for one month more. Altho at Father Point the river never freezes over, there is a great deal of ice-float except when the ice bridge forms at Quebec.[1]

Of the ocean steamers bound for Quebec, "the first vessel usually arrives at Father Point from the sea in the last fortnight in April, and the last one leaves the last few days in November."[2] The small craft do not attempt to break anything but the lightest ice, and even then are always running a risk. The modern ice breakers, perfected since the commencement of the war, will probably have little effect upon the smaller ports that lie far out of the steamer channel.

Thirty miles below Quebec the water is too salty to freeze over solidly, and the winds have sufficient play to hinder freezing. But floating ice is in great amount. There is always a channel along one shore or the other, for even a slight breeze is sufficient to blow the ice from the land. But navigation is not a simple matter. Coupled with this is the severity of the weather, which makes the traveling anything but pleasant. In out of the way parts of the world where travel is most difficult, if but one thing is to get thru the weather barrage it is the mail. And yet I saw in Les Escoumains a notice that there would be but six mails that winter for parts of Quebec Labrador, and that those would be of uncertain date. The matter speaks for itself.

But none of this has to do with the delightful summer months. One sees from the little town along the low hills of the South Shore, or from the piedmont hamlet on the north a continual procession of ocean liners, far out in the channel, passing back and forth between Quebec and the world. Occasionally a huge sailing vessel slowly passes, reflecting the sunlight from her sails. Small barges and freighters steam busily out to the Labradorian Coast, or turn south to the Maritime Provinces and the States. One of the larger freighters may betray its destination by turning aside from the procession to head in toward the smoke of a mill waste-pile. A few fine passenger steamers

FIGURE I. Map of the Lower St. Lawrence Valley. Reproduced by permission from the *Geog. Rev.*, Feb., 1920.

[1] The following clipping from *Le Progrès du Saguenay*[1] is taken as typical. Chicoutimi, April 24, 1919—

La Navigation

Le fleuve Saint-Laurent est maintenant ouvert entre Quebec et Montréal. A Quebec, on a placé les pontons et les caboteurs ont repris leur service.

Le Saguenay est maintenant navigable partout à la chaloupe et nous espérons que les gros navires y apparaitront bientôt.

[2] This and other details of the harbors on both shores, tho they may have been observed personally, are in a great part on the authority of "The St. Lawrence Pilot."[2]

bring in a load of tourists to the larger towns on the North Shore, stopping however, at the humble places as well, to take away their cheese. In Quebec Labrador the event of the month is when a trading vessel puts in. Along the South Shore there are a few passengers who would prefer the boat to the railway, but the lumbering towns have, nevertheless, from time to time ships anchored off their coasts.

From his cottage the habitant sees thousands of ships pass and yet may know as little about shipping as a Nebraskan. This, of course, excepts those fishing ports of the northeastern coast. Betsiamis breeds

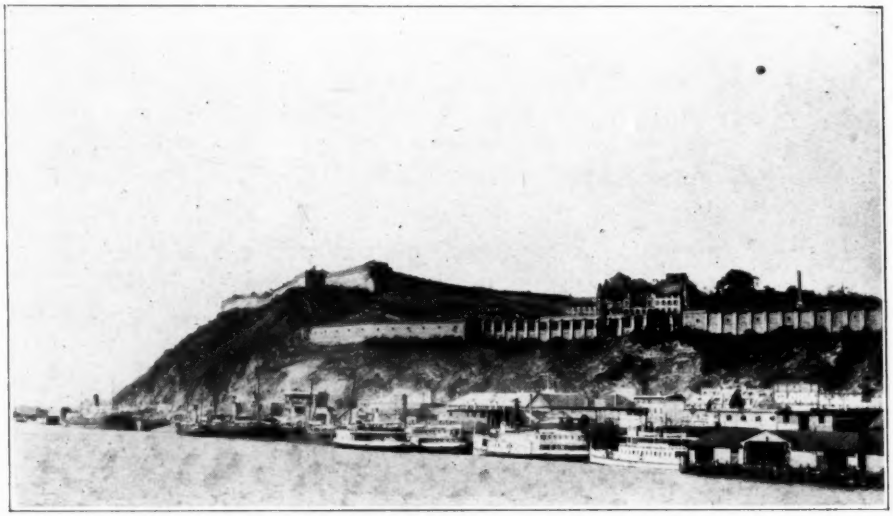

FIGURE 2

Shipping Scene along the quay of the Lower Town, City of Quebec. Photo by Prof. S. F. Clark, Williams College.

as bold and skillful a sailor as does its ancestral Finisterre. This landlubberly situation of the region as a whole arises from the remarkable paucity of harbors. Certain of the harbors that are good are lacking in a hinterland of importance. The difficulty lies not so much in the contour of the shore, as in the shelving approach due to the latest stages of marine erosion combined with the large tides resulting from the funnel-shaped estuary. At Quebec the neap tide is thirteen feet, and the spring tide eighteen. At Rivière de Loup, where there is an excellently contoured coast for a harbor, the tides are ten-and-a-half feet and sixteen feet respectively. Bic harbor would be an ideal haven were it not for the fact that tides of eight and ten feet leave the cove a dismal mud flat on the ebb. Even at Cape Chat the tide in the spring may run up to thirteen feet. The North Shore is not better off,

and along the islands of the St. Lawrence, where water communication is so important, the tides are the greatest of any place in the estuary. In the Beaujean Channel opposite Gross Ile, the spring tide difference is nineteen feet. The great amount of water that must pass in and out with every tide through the narrow reef-sprinkled delta means that tidal currents and runs are caused, which make navigating in the estuary a dangerous matter. The tide runs seven-and-a-half knots an hour past Baie St. Paul and sets up rips large enough to make navigation in small boats difficult. It is quite common for the river to race past the pier heads of the North Shore towns at the rate of three knots an hour.

However, these tides altho great, might still permit of good harbors if it were not for the shelving marine terrace and the off-lying muds. Let us take a few examples. Baie St. Paul is the first approximation to a harbor on the north Shore. Shielded from the winds and waves of the estuary, by its bulky capes and by Ile aux Coudres, it is afforded sufficient protection. However, the wave-cut terrace that extends a mile beyond the shore, to which is added a half-mile more of delta muds from the valley's two rivers, forms a formidable separation of land and sea. Small barges run up to the mill and beach, but boats of any draft and regularity of schedule must land their cargoes at a pier jutting out from Cap Corbeau in the face of strong tidal currents. The distance from the pier to the village is two miles.

The story of the harbor of La Malbaie is the same. Figure 3 shows a boat stranded three miles from the boat in the first figure. The modern settlement of the town is along the two roads that lead from the head of the bay to the cape on each side. At Pointe à Pic there is a wharf stretching from the headland to deep water. It was necessary for the local pulp company to build a railroad out to the pier where the pulp could be loaded into the larger steam barges. But even at high tide the bay is not easy to navigate because of the strength of the tidal streams. "*La Malle Baie,*" Cartier called it when in 1608 he noted that, "the tide runs here marvelously." The harbors of the farther coast have exactly the same difficulty, to which in some cases is added the misfortunes of drifting sands. Tadousac is the one exception. But as the Saguenay passes ships far into the hinterland, this port has no purpose other than satisfying its own modest needs.

Between Malbaie and the Saguenay there is not one harbor or even anchorage. Beyond the Saguenay the coast is well contoured for harbors, but each cove or bay between Tadousac and Portneuf is dried at low tide. At Portneuf there is a river channel that is navigable for a

mile-and-a-half. Beyond the Betsiamis, Outarde, and Manacouagan Rivers all offer harbors of some sort. Godbout has a good harbor. It is fortunate that this farther territory is blessed with a certain amount of harbor facilities, for land communication over such lengths of rough country would have been fatal to development.

The South Shore is less fortunate. There is no harbor from Cap Chat to Rimouski. Matane is the only place here that attempts to keep up water communication, and here the vessels lie off shore, where, in case of a storm, they must hoist sail and clear for the open

FIGURE 3

The outer "harbor," Malbaie, at low tide. Photo by Prof. S. F. Clark, Williams College.

sea. Near Rimouski is the village of Rimouski Wharf. Here a pier 2100 feet long is necessary for vessels with a draft of 11 feet. Continuous dredging is carried on to maintain a 14 foot depth, but to little avail. Rimouski would at first glance appear to have an excellent harbor, but this is not the case. The shallowness of the bay, and the great tide differences causes it to be dry at low tide. The cove at Bic is guarded with islands. There could be no better harbor were there water enough. There is, in the lee of Ile de Bic, an anchorage which gives a "comfortable berth."[2]

The one other point of the South Shore where a harbor might be possible is at Rivière de Loup where, again, the bay is of little worth and a long pier reaches to deep water. (Figure 4.) There are, as at Trois Pistoles, Rivière de Loup, and Rivière Ouelle, points where small boats

and ferries can, and do, land regularly. For the most part behind artificial protection. But it speaks for the poor water communication that almost no produce other than lumber, bricks, grain, and hay is carried by boats. During the summer months there were at one time steamers to carry tourists to such points as Kamouraska, Cacouna, and Little Metis. Perhaps water communication would have had a greater

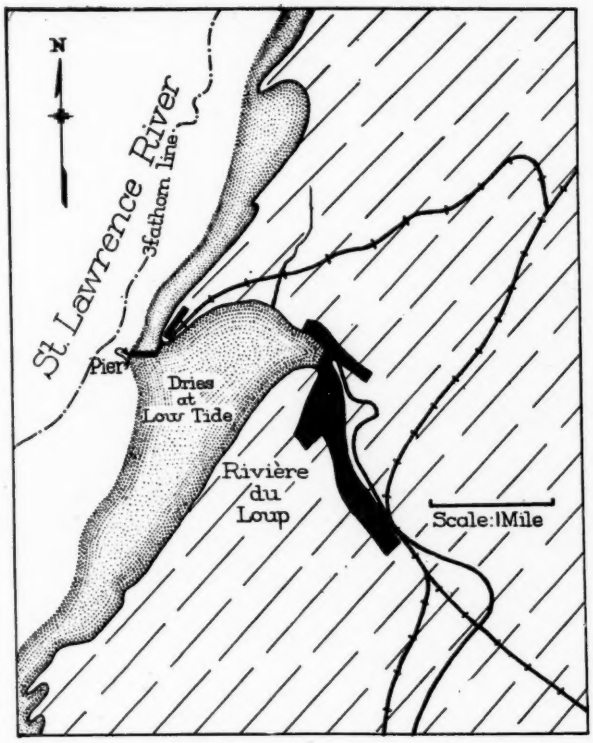

FIGURE 4

Coast contours at Rivière du Loup, South Shore, which tho favorable for a harbor at high tide necessitate the construction of a pier and a branch railway to reach deep water at the ebb. Adapted from Canadian Coast Chart No. 201.

modern development were it not for the easy land communication along the level terraces.

THE LAND COMMUNICATION

The South Shore is fortunate in its land communication and has a railway, the Intercolonial, which runs from Quebec as far as Little Metis, where it turns south and breaks thru the mountains along the Rivière Matapedia to Halifax and the Maritime Provinces. Its original function was politico-geographical and had as its aim the con-

solidation of the British Possessions in North America. There is a short line built to accomodate the lumber industry which runs from Mont Joli, just back of Little Metis, to Matane. The only difficulty of construction that either of these roads met with is the frequent stream valley which comes down out of the mountains, notching deeply the terrace on which the road is built. Most of the valleys are spanned by the long wooden trestles that are so characterisitc of American railways.

The highways have the same advantage. There is a road following the river for the entire 240 miles. A large part of the distance the road

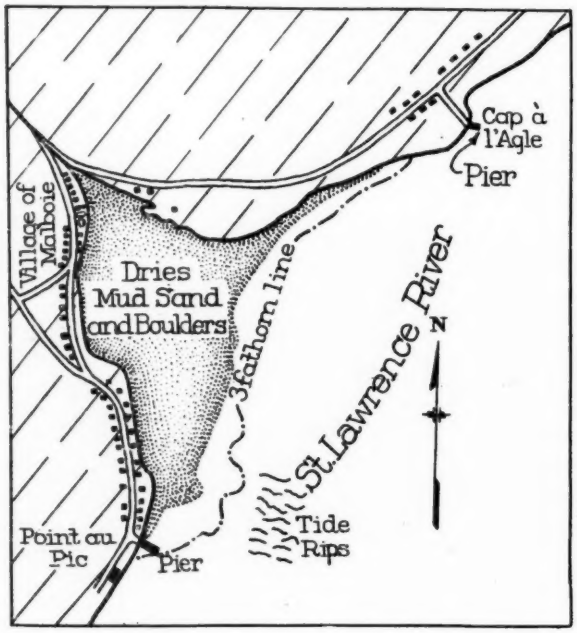

FIGURE 5
The harbor at Malbaie (Murray Bay). At low tide the reëntrant is a desolate mud flat.

is on the lowest and most recent terrace, following along at the base of what was the wave cliff. In such sections as the Trois Pistoles-Rimouski stretch, the road takes the first longitudinal valley back from the river. These longitudinal valleys are utilized by the roads of the rear concessions, tho often, as from the water off Trois Pistoles and Matane, two and three lines of houses may be seen on tiers above each other, with no intervening ridges. Of course the highland presents difficulties. The face is unbroken except in two places, the depressions of Temiscouata and Matapedia. Where there are farms on the upland,

roads climb the crest without great difficulty and disappear into the wooded interior. But most of these are short. Between Quebec and Matapedia there are cross roads which run back to the Chemin Taché. Those are government-built and are designed to aid settlement. This artificial stimulus has done little, however, and I am afraid will do little, to promote this. There are also two roads, wilderness roads, which run within the highlands some ten to twenty miles back from the river. The more persistent of these is the Chemin Taché. Its economy is a matter which is not yet determined. Following a circuitous route some twenty miles back from the river, there has

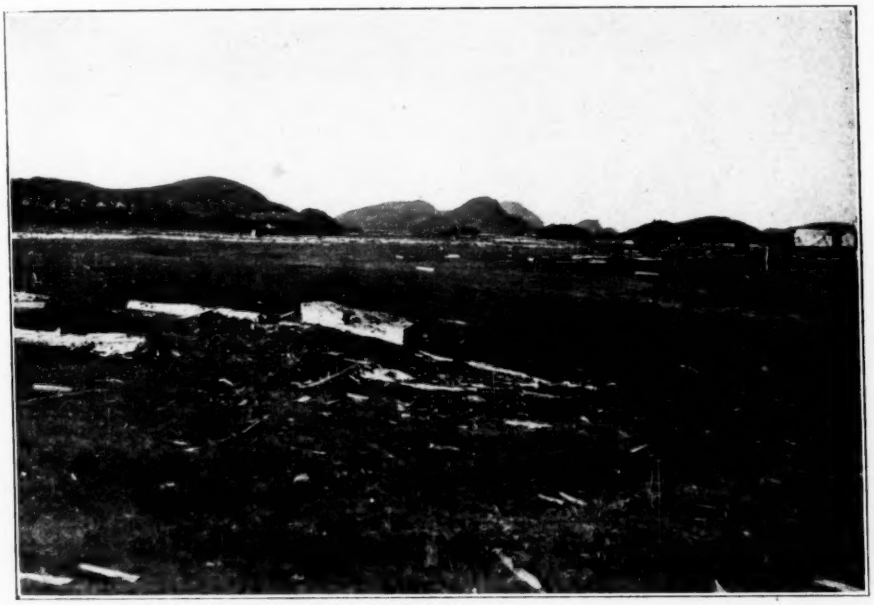

FIGURE 6
Looking across the harbor of Bic at low tide. Photo by the author.

been built within the last few years the Transcontinental Railway (formerly the Grand Trunk Railway). This passes thru a region which is more difficult to traverse than the clear path of the Intercolonial. But difficult communication is not the only drawback to that portion of the country. Between Montmagny and Edmunston, I have it on official word, there is little agricultural possibility.

But whereas the côtes of the South Shore have free passage back and forth along latitudinal lines, it is not so on the North Shore. There is not even a roadway going the entire length. True, on leaving Quebec, the prospect appears encouraging. The Côte de Beaupré has

the same level conditions of the South Shore. But out of St. Joachim one meets the great thousand-foot cliff of the Laurentides and it must be climbed to gain the towns beyond. Once up on the plateau,

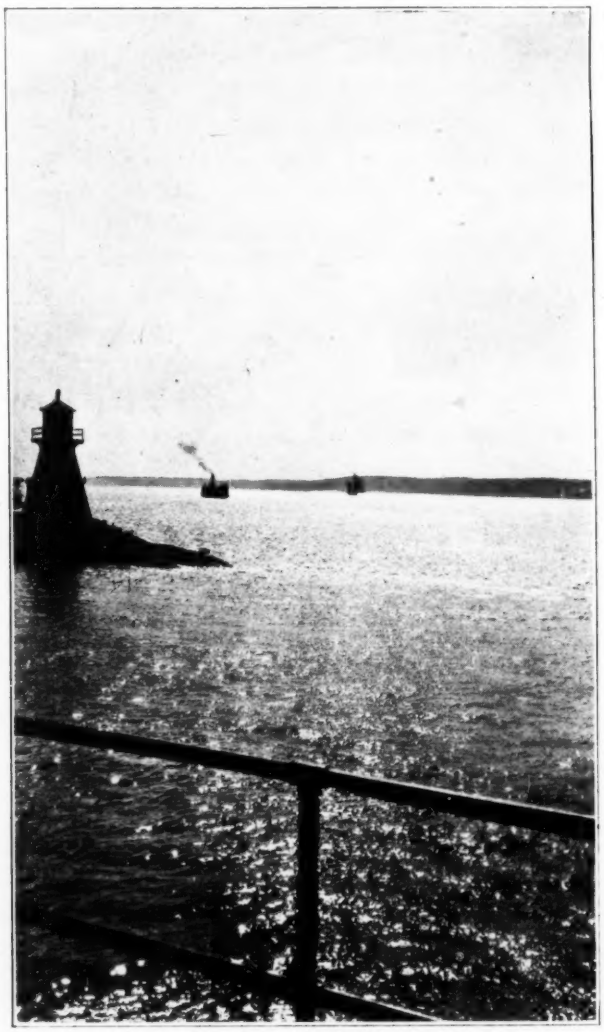

FIGURE 7

Communication on the lower St. Lawrence. Photo by Prof. S. F. Clark, Williams College.

every stream that drops into the river has cut a gorge for itself, and this youthful character of the valleys makes difficult grades. Then, on approaching Baie St. Paul, one comes to a magnificent view of the valley of the Gouffre, but the roads that lead to it must needs be more

inspiring to the casual traveler, than to those who must travel it in the pursuit of duty. This stretch tells the story of the road from St. Joachim to the Saguenay, except that from St. Fidèle on there is wilderness, nothing else, and its sixty miles are not lightly undertaken. From Tadousac to Portneuf a road runs that is in places stony on the uplands, but sandy on the lowlands. The road ends with Portneuf. Beyond there is no land communication, unless the lonely journeying of the patrolmen who keep the telegraph line in order may come under that head. The problem of communication and transportation over the land takes on a different character in the winter, whether it be in the lonely trails of the linesman of Quebec Labrador, or the well-traveled road between Bic and Rimouski. On land a severe winter means lots of snow, and once a trail is beaten down there is comparitively swift and pleasant going for the hardy little Canadian horses. Again, the snow aids greatly in transportation in the region's most important industry, the logging. The logs are "snaked" out of the woods to the nearest stream to lie on the ice and there to await the thaw and spring flood. Logs are taken down steep hillsides, sometimes up the slopes, and dragged across frozen swamps, and skidded easily over "soft" ground. The snow covering is responsible for the torrents that make even the little streams capable of shooting the logs to the main stream and thence to the mills. More to the north where the snows are deep, the picturesque dog and sledges are used, and the wilderness is traveled at a speed wholly different from the rate at which a canoe may be poled up against a rapids in summer, or at which a man, loaded with a pack, may fight his way through the brush.

Two elements of the life there are, over which the snow and cold have no control. They are the piety of the habitant and his social instinct. In regions where, I was told, the snow piled up to the windows of the cabins, the league, two leagues, even the three leagues to the church, were covered devoutly by the entire family every Sunday. We say that the church has entered intimately into the lives of the people. Could there be any greater proof of this than the regularity with which the habitant drives over the long stretches of snow to his mass?

A remarkable engineering feat has been accomplished, and much of this during times of war, which materially changes the situation on the North Shore. The Quebec and Saguenay Railway has been completed as far as Malbaie and is now in its second winter of operation. This is an extension of the line that runs from Quebec to St. Joachim, which was built originally to carry the religious pilgrims to St. Anne

de Beaupré. Beyond St. Joachim the road-bed has been carved from the foot of the great rock cliffs. The railway has been constructed at great cost and is the property of the Canadian Government. One might think that in view of the fact that the original section of the Railway, running the length of the Côte de Beaupré was operated by electricity, the entire road might take advantage of this power. It is operated by coal, however, and it is not intended to use electrical power in the immediate future. In response to certain questions, the superintendent of the railway has replied that it will not affect the agricultural economy greatly except in the production of butter in the place of cheese. Certainly there will be large shipments of pulpwood from Baie St. Paul, wood pulp from Malbaie, and iron ore from St. Urbain. Altho thru the winter there are but two trains a week, nevertheless this means an all-year-round communication and a new commercial régime.[3]

In considering the effect of the lack of communication upon the habitant, the problem must be reviewed from an historical point of view. It was not until the middle of the 19th century that roads were built the length of the South Shore, and until comparatively recent times the North Shore, except for the more western portion, depended entirely upon water communication. An excellent example of the problem in transportation that presented itself early in the 19th century was concerned with Ile d'Orléans. In the early days, when the river was full of flow-ice but was not frozen solidly, Quebec suffered a scarcity of certain commodities usually supplied by the South Shore, as there were then no bridges. Prices rose in consequence. But when the channel froze over, milk and vegetables were brought in a frozen state from great distances, and such bulky commodities as hay and firewood were brought in with ease. Prices in consequence dropped. Below Quebec the South channel, along the side of the Ile d'Orléans, never froze. The North channel froze regularly. Thus the rich farming region of the island was made directly tributary to the city. The vegetables which the islanders had held since summer, awaiting cheap transportation, were now brought into the city and there was again a consequent drop in prices.[4]

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[1] *Le Progrès du Saguenay.* A weekly journal of Chicoutimi. (Chicoutimi is at the head of navigation on the Saguenay River.)

[2] "The St. Lawrence River Pilot; Below Quebec." 3rd Ed. Can. Naval Service of Canada. Ottawa. 1906.

[3] Personal Communication. Everell, J. A. Superintendent, Quebec Light and Power Company. Quebec. November 13, 1919.

[4] Pouchette, Joseph. "Topographical and Statistical Description of Lower Canada" in Vol. I of "The British Domains in North America." 1832.

SIGNIFICANCE OF THE LOCATION OF BERMUDA

ROBERT S. PLATT

Department of Geography, University of Chicago

Bermuda is so small that if drawn to scale on a wall map of the world the island group appears no larger than a pin hole. The Hawaiian Islands have an area more than 300 times as great. Perhaps, therefore, cartographers are to be pardoned if they commonly omit Bermuda from their maps; and perhaps, in consequence, other people are to be pardoned if they have a rather indefinite idea of the location of the islands. Yet the importance of Bermuda is great in proportion to its size, and the most important thing about it is its location.

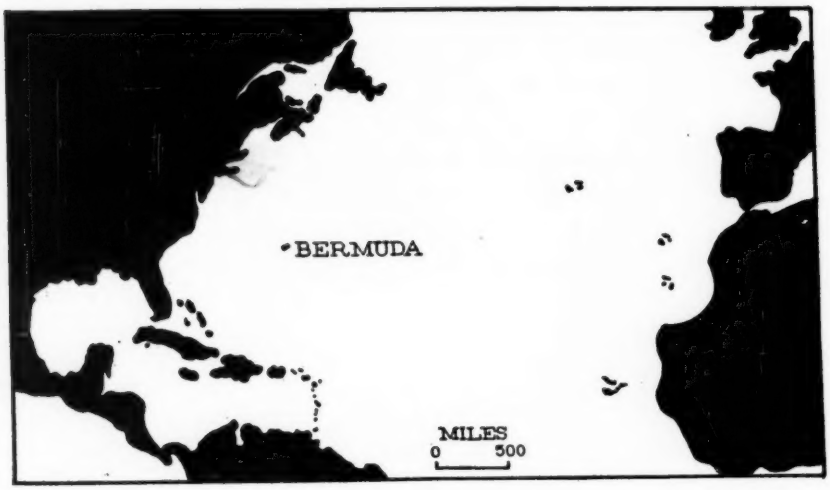
ISOLATION

In times past one of the outstanding facts about Bermuda was its isolation. There are very few islands in the world so small that are so far from any other land. The nearest land is Cape Hatteras at a distance of 575 nautical miles. When first discovered about 400 years ago, Bermuda was uninhabited, and very likely had never been seen by man before. There were few kinds of animals, and those few were small. Plants also were limited in variety, although isolation was less effective for plants than animals, because of winds, currents, and migratory birds carrying seeds.

After discovery and settlement the isolation of the islands was made manifest in other ways. From the time of its founding the Bermuda Colony was too far away to be in close touch with the mother country, and yet was too small to be self-sufficient and independent. In early years the Bermuda Company in England acted without understanding the situation in the Colony, and without appreciating needs and opportunities, and yet the Bermudians were unable to escape from the control exerted. Later as a royal colony the situation was similar and Bermuda flourished more in being forgotten than in being remembered, but suffered whenever cut off commercially. It was dependent on the other American colonies for many things and was in sympathy with them, but was too far from them to join in their Revolution. The power controlling the sea is able to hold Bermuda. To this day the colony is left to itself, happy in being practically self-governing, but occasionally unhappy in being cut off from the rest of the world or in being overlooked.

LOCATION IN THE ATLANTIC

Distance is of constantly less importance in the modern world, and isolation is a diminishing factor. The distance of Bermuda from any other land is now less important than its relation to particular lands. The group is in the western part of the North Atlantic, near the center of an approximate semicircle formed by the American coast and the West Indies (See map). Halifax is 730 miles to the north, New York 675 miles northwest, Charleston, S. C., 772 miles west, the Bahamas 715 miles southwest, and St. Thomas 833 miles south. The semicircle is open toward the east, the nearest land on that side being the Azores at a distance of 1500 miles. Thus Bermuda



Location of Bermuda

is alone opposite the American coast between the Old World and the New. It is not surprising that the group was discovered promptly in the age of exploration, within twenty years after the first voyage of Columbus, and that during the 16th Century it was the scene of shipwrecks and the refuge of pirates. It was on the route to Europe from the "Spanish Main," within the southern border of the belt of "prevailing westerly winds," just north of the "Sargasso Sea." On the voyage eastward across the Atlantic ships from the West Indies started northward to avoid the adverse "Trade Winds" and the calms of the "Horse Latitudes" and then sailed eastward after reaching favoring winds near the latitude of Bermuda.

EFFECTS OF LOCATION IN 17TH AND 18TH CENTURIES

English settlers on their way to Virginia were cast ashore there in 1609, and soon after (1612), the Bermuda Colony was started by the Virginia Company, the two settlements, Virginia and Bermuda, being looked upon as sister colonies. Thenceforth thru the 17th and 18th Centuries Bermuda's commerce was increasingly with the American colonies and the West Indies, in spite of regulations attempting to force the commerce exclusively to England.

The Bermudians needed many things, but they had very little to sell in exchange. Their farm products and fish were not sufficient for themselves. Cedar timber from the wooded hills of the islands was a resource of value and, although it was not abundant enough for regular export, there was enough for building ships; and with these ships Bermudians developed a carrying trade along the American coast. Often they sailed from home without a cargo. In the winter months they gathered salt at Turks Islands in the West Indies. With this they sailed to Newfoundland or Nova Scotia, thence traded southward along the coast, and finally returned to Bermuda with commodities needed at home and with money to spare. This trade suffered in times of war, but some advantage was taken of the situation by the building of fast armed privateers that used Bermuda as a base between Europe and the American colonies of Spain and France, and captured many prizes.

EFFECTS OF LOCATION IN MODERN TIMES

In the 19th Century, with decrease in the Bermuda timber supply, and with the invention of iron steamships, the carrying trade of Bermuda declined like that of New England. The chief paths of Atlantic commerce were not near the islands, and the position off the coast of the United States was not important except for the brief period of the American Civil War, when Bermuda was a base for Confederate blockade runners. Then St. George's was a busy port, its harbor crowded with ships, its wharves laden with merchandise, and its people making large profits. The blockade runners were small, swift steamers which made a dash from Bermuda to Wilmington, N. C., with cargoes of food and munitions, and returned with bales of cotton, if successful in eluding the ships of the Union blockade. Larger vessels carried the cotton on to England, and returned with food and munitions for the blockade runners. The fall of Wilmington brought the trade to a sudden end, and Bermuda lapsed into a period of commercial depression.

Even in times of little trade, Bermuda never ceased to be of importance as a place of refuge and relief for ships traveling the North Atlantic, holding a permanent monopoly as the nearest port in an area of 300,000 square miles of ocean. Before colonization of the islands, they were a menace to shipping—"Devil's Islands"—and even after colonization wrecks were looted rather than salvaged. Now there is a growing business in repairing, refitting, and supplying ships. The place has hardly yet lived down the name of "Pirate's Cove" which was gained as a result of taking advantage of ships in distress. But efforts are being made to build up regular business on a more solid basis than that of the shipping which flocks in after a storm. Bermuda lies in commercial paths of increasing importance and is well situated to receive coal, particularly from Norfolk, Va. Ships sailing from New Orleans and other Gulf ports have difficulty in obtaining coal, and by starting with a small supply and stopping at Bermuda for more on their way to Europe, they are able to save space for a larger cargo. Bermuda lies in the so-called "low power route" across the Atlantic by following which ships may avoid the stormy winds farther north, the prevailing westerlies, which hinder sailing from Europe to America, especially in winter. During the Great War many ships returning from Europe without cargo and with little coal were delayed by head winds even on this southerly route and stopped at Bermuda for more coal and supplies. It was a regular way station during the war for small craft, such as submarine chasers, crossing the Atlantic either east-bound or west-bound. Other routes that pass close to Bermuda are those between Europe and the Panama Canal via the Windward Passage, between New York and the Atlantic ports of South America, between New York and South Africa, and between Canada and the West Indies. On this last route Bermuda has long been a regular port of call, a half-way station, for steamers from Halifax and St. John to the British West Indies.

The importance of Bermuda as a British naval base has been due primarily to its position in the West Atlantic between the British colonies on the continent of North America and those in the West Indies.

But Bermuda is chiefly known, neither as a coaling station on routes of commerce nor as a naval base off the American coast, but as a winter resort and producer of onions. The principal contributors to Bermudian prosperity at the present time are indeed tourists and vegetables, and this development depends largely on the fact that Bermuda is located nearer to the northeastern part of the United States and Canada than any other place with so mild a winter climate. The

climate is a normal one for isolated oceanic islands in lower middle latitudes (latitude 32° north), mild and moist throughout the year. Very likely winds from the continent are tempered somewhat by the Gulf Stream, which flows between Bermuda and the American coast.

Thus the oceanic location of Bermuda is responsible for its climate, and its location with reference to New York is the basis of its prosperity as an accessible winter resort and as a source of fresh vegetables in winter. There are many other places in the world where the weather is warm in January, but few of them have such an advantage as Bermuda in being near a densely populated region where it is cold at that season.

In the future Bermuda may become a way station on trans-Atlantic air routes. But so far as can be foreseen, the connection with New York is likely to remain the dominating interest of the islands for the same reasons as at present. If transportation should become so rapid and efficient as to make distance negligible Bermuda might lose its advantage over warm lands farther south, but probably this loss would be outweighed by final elimination of the disadvantages of isolation.

THE STATE SUPPLEMENT[1]

RUBY A. HENRY

Girls High School, Louisville, Ky.

I am entering the lists in this competition "open to teachers of all grades" in the spirit that I think must have impelled Theodore Roosevelt to take part in the jumping contests among the older boys with whom he played. He knew he couldn't jump the farthest, but he just had to see how far he came short of it. My "jump" in this contest will be an attempt to state the case, as I see it, of the school children and teachers of America, against that part of the textbooks in geography known as a "State Supplement." As I do not wish to take any unnecessary risks, I respectfully request the editors of the *Journal of Geography* to remove from their list of jurors or judges any one who has ever written a so-called "State Supplement" and to place a disinterested party in his stead.

The textbooks she must use form so large a part of a teacher's life that it is not easy for her to understand the indifference of other people towards them. Their cost is the subject of an annual family discussion in September; their adoption furnishes the material for a political upheaval once in five years. As for the rest—"Let George do it." Only in this case it is Georgia or Georgette. But, as we "do it," with varying degrees of success, we silently rejoice that those who write magazine articles and make speeches for a living, have at last gotten around to our school textbooks, and are giving them and those who write, publish, or adopt them some wholesome publicity.

It was inevitable that the school histories should be "investigated" first. The average school history is readable and the investigators remembered it, by pages. We took a lot of punishment from Germany before we were ready to hit back, and they said our textbooks had been Teutonized. We leaped to the call of France with a national echo of "Lafayette, we are here!" That was due, we were told, to the exaggerated Lafayette myth. We took plenty of time to make up our national mind about England. "Don't let the British pull the wool over your eyes." So much for the historians' biased and prejudiced treatment of the American Revolution. These are general indictments of the subtle power of textbooks to mould our national life and to deter-

[1] This paper was awarded honorable mention in the Prize Essay contest conducted by the American Geographical Society.—EDITOR.

mine our national reactions. The probable influence of a specific text upon the life of an individual is related by Scherer in his "Cotton as a World Power," in which he advances the belief that a certain book on states' rights used when Robert E. Lee was a cadet at West Point, undoubtedly determined or confirmed his views on that subject and his ultimate choice of sides in the Civil War.

But while we are told in public that the histories our children use in school have determined our war policies and our international reactions, the educational magazines are telling us that if geography had been properly taught there would have been no world war; that we have failed to apprehend and to teach the solidarity of the human race and the spiritual value of an intelligent and sympathetic understanding of conditions of life in other lands. History has too much of the human element, geography too little. History hasn't treated all nations alike; geography has. History has been biased, but interesting. Geography has been accurate, but encyclopedic. The results are equally bad, it seems, for people have remembered the one, and forgotten the other. The question in my mind is, why is the *textbook* blamed in the one case and the *teacher* in the other. I can recall only one article in which the writers of our geography texts have been taken to task. May we who teach not fairly ask that they who write be held partly responsible for the failure of the nations to dwell together in brotherly love?

We teachers may just as well acknowledge frankly our inevitable dependence upon text books. They are our indispensable collaborators, or our tools, if you prefer it so, in the work of the schoolroom. It has been my good fortune to teach geography under as favorable conditions and with as complete an equipment for reference and illustration, which I had the privilege of selecting, as any teacher could reasonably desire or use. After years of topical and reference method, of individual and indeterminate assignments, I am not yet ready to say that the undeniable preference of parents and pupils for a definite textbook lesson assignment is not instinctive and sound, or that Professor Hornaday was not right when he said that "any boy who cannot dig out his lesson from a good textbook, with reasonable help from the teacher, ought to be taken out of school and put to work." But I know, no matter which method may be best, that there are comparatively few teachers in our country who can have any choice in the matter at all. It is the textbook, or nothing, in the tens of thousands of graded and ungraded schools scattered thruout our country. The elaborate courses of study, ideal outlines, model pres-

entations with which the average teacher is swamped can only be a source of irritation or discouragement if she lacks the time to digest them or the equipment to use them. It is not material on the teacher's desk or even in her head that is needed, but in the pupils' hands. Unless the course of study or the outline squares with the textbook in use, it will only contribute to further "industrial unrest" among teachers.

It will necessarily be some time before the "new geography" can emerge from its present theoretical and controversial stage and assume tangible and usable form between the covers of a textbook. In the meantime, is it not possible to make a modest start in the right direction from the one point upon which all geographers agree? This new subject, whose mission it is to teach the world that "no man can live a life apart," must, like charity, begin at home, and from that base reach out to possess and subdue the earth. "The world globes itself in a drop of dew," wrote Emerson in his essay on "Circles." Thoreau remarked, on returning to Emerson a copy of Dr. Kane's "Arctic Explorations," that "most of the phenomena noted might be observed in Concord." "The rootages of patriotism are local," wrote Woodrow Wilson in the preface to his "History of the American People." Let us begin the reorganization of our textbooks then where the subject begins—with home geography.

A discussion of the geography of the immediate environment of any community is outside the scope of this article. A textbook is intended for general use and must make its point of contact thru the geography of a single state with whatever home geography has been previously taught. This is the smallest unit it can reasonably be expected to consider. Now that I have at last returned to my starting point, I shall ask you to read again the editorial and the article by Mr. Fairbanks in the September, 1919, *Journal of Geography*, and then to examine with me the state geography in any texts within your reach, in the light of what is stated in the *Journal* and of what I have here tried to express. May we not rightly object to its position in the book, like the last pages in a dictionary? Should it not have the place of honor now occupied by "the earth as a whole," if it is to furnish the basis for further study? One can begin with the last pages, of course, but "first come, first studied" is the line of least resistance to the teacher if not to the publisher.

There is internal as well as external evidence, however, that the state geography is an afterthought. We surmise that those responsible for the adoption of textbooks in a state perhaps never see it in

print or in proof, but that it is "written to order" after the successful publisher has landed his contract. The "distinguished educator" who gets the order falls to, with a lot of other state supplements and an encyclopedia and a copy of the latest Census; and then in the narrowest margin of time he turns out, and in, a manuscript on the geography of that particular state which is as much like the text of all other states and countries, except for the troublesome differences in facts, as he could possibly make it. Is it any wonder that the various state geographies are as much alike as the stars in the blue field of "Old Glory"? What help is to be found in them for the busy teacher of many subjects or many classes? What basis do they offer for "gaining an understanding of that which is remote and unfamiliar"? The curse of deadening uniformity is over them all. Let us rewrite them in the light of the new vision that has come to us, or leave them out entirely.

I would suggest that any one who is in search of "distinctive facts and big issues" of the states of our country, or who doubts the existence of forty-eight varieties of personality in Uncle Sam's family, should spend a few midwinter weeks in a boarding-house in Florida or invite to his home a hand-picked assortment of soldiers from the nearest army camp. Then, if he plans to write a geography of any state, let him live on its soil and among its people long enough to verify the "copy" which its expatriates have unconsciously furnished him. His task will not be easy even then. "It takes a man of genius to travel in his own country," and the textbook variety of genius is scarce. There will be honest differences of opinion regarding the correctness of his conclusions and his method of presenting them. He will be on the trail, however, of that elusive something, the personality or soul of a place, that endears a state to its sons and daughters, native or adopted, and makes it only a larger home; and the pages that he writes will be alive, and not dead. And the teachers of that state will rise up and call him blessed.

CAN YOU JUSTIFY GEOGRAPHY?

We are often inclined to take old established things for granted without questioning them. This is a day when proof of the worth-while-ness of things is demanded. The geography teacher is constantly confronted with an overcrowded curriculum; time is demanded for new subjects and, in many instances, the favorite scheme is to secure time by reducing that given to geography. In some cases the time has been reduced so that geography ends in the sixth grade. When such demands are made could you muster convincing reasons for retaining geography?

Hold an interview with yourself and ascertain whether you can justify geography as a subject worthy of occupying time in the school curriculum. What are your reasons for teaching geography? Why should it be taught in any school? If it is justified as a school subject you should be able to marshal strong, concise reasons in its defense. If it is justified, if its quality is not up to the standard, if the time given to it is not satisfactory, then as teachers, we should endeavor to make it worth while and to secure proper time for its presentation.

Many teachers in colleges and normal schools believe that geography is of importance yet they have not been able to convince their presidents, or other governing officers, that it is of sufficient importance to be given a place. As a result we have the spectacle of some normal schools in the United States not offering geography, except by some unfortunate teacher whose class schedule is not otherwise filled. We have other normal schools in which no geography is required of its graduates, tho they go out to teach the subject in the elementary or high schools of the country.

In other institutions of higher learning where geography has been recognized there is a satisfied feeling "that everybody ought to know that it is worth while." These teachers feel that "it needs no justification" and pass the question with no concern. This merely indicates *how far removed they are from the grave problems confronting those on the frontier* who are endeavoring to get geography established or to retain what they now have. It is these favored teachers who are frequently best prepared to supply strong and convincing arguments for geography.

It is not alone the individual teacher but school superintendents, supervisors, college and normal school presidents who must often

make a fight for geography. These officials have the problem of convincing a governing board that geography is worthy of recognition or of better recognition. Every teacher, superintendent, supervisor, president, college or normal school professor, or business man, who believes in geography can aid others by formulating a convincing argument for giving it a suitable place in the elementary or high school curriculum. If these arguments are sound they supply the normal school or college president, as well as teachers who would like geography adequately taught an equally good argument as his institution prepares the teachers for the elementary and high schools.

The *Journal* invites all interested in advancing the teaching of geography to supply these arguments. They will be tabulated, organized and published in a later number. May we not formulate an array of arguments that will be convincing? May we not formulate a creed for geography? Will you cooperate by sending your answers to the following questions to the Editor of the *Journal?* Any other concise and pertinent statements not covered by the questions will be appreciated.

Elementary schools

1. Why should geography occupy a prominent position in the elementary school curriculum?
2. Is the time now given geography sufficient? Reasons.
3. Should geography be given more or less time? Reasons.

High Schools

1. Why should geography occupy a prominent place in the high school curriculum?
2. Is the time now given geography sufficient? Reasons.
3. Should geography be given more or less time? How much? Reasons.
4. What should the high school course include? Reasons.
5. In what years should geography courses be offered? Reasons.
6. Should all courses be elective? If not, what ones should be required? Reasons.

Normal Schools

1. Why should geography be taught in normal schools?
2. Should there be at least one thoroly prepared teacher of geography in all normal schools? Reasons.
3. What is the miminum amount (in weeks) of geography that should be required of all students preparing to teach in the elementary schools? Reasons.
4. The same as question three for those preparing to teach in high schools.
5. What should be the controlling principle determining the type of geography taught? Reasons.
6. What type of geography should be taught where the minimum only is possible? Reasons.

UNION OF SOUTH AFRICA

AMY E. WARE
State Teachers College, Warrensburg, Missouri

Subject: The Union of South Africa
Method: Problem lesson developed by a study-recitation
Material:

Encyclopedia Britannica, Vols. I and XXV; Americana, Vol. I; Statesman's Year Book, 1916; a modern geography textbook, Vol. II; a world map and physical map of Africa; Geography of World's Agriculture by Finch and Baker; Bartholomew, Atlas of Economic Geography.

General statement: Some parts of Africa have been called "white man's Africa" and other parts have been called "white man's grave."

Class discussion of the meaning of these two titles

Statement of problem: Does either title rightly describe the union of South Africa?

Development of lesson:

I. Could white men live comfortably in South Africa?
   1. Climate
      Locate on world map and compare with other parts of the world equally distant from the equator. Study temperature, wind, rainfall and vegetation maps of the world in textbook and Bartholomew's Atlas.
   2. Surface features
      Study physical map and vegetation map. Discuss mountains and deserts as barriers. Bartholomew's Atlas.
   3. Answer to question: Could white men live comfortably in South Africa?

II. Does South Africa have sufficient resources to attract white men?
   1. Mineral wealth
      Use Encyclopedia Britannica or Americana, Statesman's Year Book, newspaper clippings about diamonds. Textbook
   2. Agriculture
      Use Statesman's Year Book, Geography of World's Agriculture. Textbook
   3. Manufacturing
      Statesman's Year Book
   4. Answer to question: Does South Africa have sufficient resources to attract white men?

III. Is South Africa a white man's Africa?
   1. Population
      a. Original
         Encyclopedia Britannica. Vol. I. Textbook.
      b. Today
         Statesman's Year Book
   2. Government
      Form, qualifications of members of Parliament
      Statesman's Year Book
   3. Transportation
      Study a railroad map of Africa as the one in Statesman's Year Book, 1916. Shipping, Statesman's Year Book and Bartholomew's Atlas
   4. Answer to question: Is South Africa a white man's Africa?

IV. A summary of the factors which prove the right of the Union of South Africa to the title "A white man's Africa."

This lesson can be informally developed, the class room becoming a cheery, busy workshop, as children are led to suggest the factors which aid in the solution of the problem. They will profitably discuss these factors as members of the class look for exact evidence in the reference books.

CHARACTER AND DIRECTION OF AMERICAN TRADE

"Great changes have taken place in the character and direction of the trade of the world since 1914. During the fiscal year ending June 30, 1914, the United States imported $1,893,000,000 worth of goods and exported $2,364,000,000. It then ranked third as an importer among the nations of the world, the United Kingdom and Germany being first and second, and second as an exporting country, the United Kingdom being first. During the fiscal year 1920 the value of its imports was $5,238,000,000 and of its exports, $8,111,000,000. It ranked second in imports, those into the United Kingdom being valued at $9,725,000,000. In the value of the exports of domestic products it ranked first, the value being 50 per cent greater than that of the United Kingdom, taking the pound at par value, or, if taken at the present rate of exchange, it would be found that the value of the exports from the United States was more than double that of the United Kingdom.

WHERE AMERICAN IMPORTS CAME FROM

"In 1914, 47.2 per cent of all the imports into the United States came from Europe; 22.5 per cent from North America; 15.1 per cent from Asia; 11.7 per cent from South America; 2.2 per cent from Oceania, and 1.3 per cent from Africa. In 1919 only 12.2 per cent of the imports came from Europe; 34.0 per cent from North America; 27.4 per cent from Asia; 18.3 per cent from South America; 6.5 per cent from Oceania and 1.6 per cent from Africa. There was an extraordinary increase in the imports in 1920 over those of 1919, of which the imports from Europe amounted to 22.6 per cent; from North America, 27.3 per cent; from Asia, 26.4 per cent; from South America, 16.7 per cent; from Oceania, 3.3 per cent, and from Africa, 3.7 per cent.

"The increase in the value of the imports from Europe in 1920 over that of 1914 was $284,000,000, while the increase over that of 1919 was $807,000,000. The increase in those from North America was $1,059,000,000 over 1914 and $434,000,000 over 1919; from Asia, $1,082,000,000 over 1914 and $538,000,000 over 1919; from South America, $638,000,000 over 1914 and $292,000,000 over 1919; from Africa, $166,000,000 over 1914 and $104,000,000 over 1919, and Oceania, $115,000,000 over 1914 and a decrease of $33,000,000 over 1919.

"The increase of imports from 1914 to 1919 was $1,200,000,000 and from 1919 to 1920, $2,143,000,000, or greater for one year than for the

preceding five years. This great increase was largely due to the increased imports from Europe, which in 1919 amounted to $372,000,000, while in 1920 it amounted to $1,179,000,000. Asia ranked next with an increase of $538,000,000 over 1919, or nearly double the total imports in 1914. The increase in North America was $434,000,000; Africa, $104,000,000, while the imports from Oceania decreased $33,000,000.

"Of the imports in 1920, 77 per cent came from non-European countries and consisted mainly of raw materials and food products, while 22 per cent came from Europe of which only a part was manufactured products. The United Kingdom with a value of $524,000,000 ranked first among the European countries and fourth among all the countries. Of the imports from the United Kingdom about one-half was of its own production and one-half was made up of the re-exports of foreign products, such as rubber, $50,000,000; wool, $35,000,000; tin, $20,000,000; furs, $20,000,000, and raw cotton $18,000,000.

IMPORTS INTO THE UNITED STATES
QUANTITIES AND VALUES
1914–1920

	QUANTITY Millions of Pounds		VALUE Millions of Dollars		INCREASE Millions of Dollars		
	1914	1920	1914	1920	1920 Over 1914	Due to Price	Due to Quantity
Sugar	5066.8	7594.9	101.6	688.1	586.5	535.9	50.6
Raw silk	28.6	47.1	97.8	437.9	340.1	276.5	63.4
Hides and skins	561.0	798.5	120.2	376.8	256.6	205.7	50.9
Coffee	1001.5	1414.2	110.7	310.7	200.0	154.3	45.7
Raw rubber	131.9	632.3	71.2	27.1	202.9	−67.0	269.9
Raw wool	247.6	427.5	53.1	212.8	159.7	121.1	38.6
Raw cotton	123.3	345.3	19.4	156.9	137.5	102.5	35.0
Vegetable oils	314.5	881.8	29.2	139.3	110.0	57.4	52.7
Chemicals	860.1	728.2	39.0	113.9	74.9	80.9	−5.9
Raw fibers	937.2	875.9	54.3	86.6	32.3	35.8	−3.5
Tobacco leaf	60.1	94.0	35.0	78.1	43.1	23.4	19.7
Tin	100.1	131.0	39.4	73.6	34.2	22.0	12.2
Cocoa	176.2	420.3	20.7	72.9	52.2	23.5	28.7
Copper, manufactures of	281.5	329.8	40.6	64.9	24.3	17.3	7.0
Nitrate of soda	1263.4	2031.7	17.9	40.3	22.4	11.5	10.9
Tea	91.1	98.2	16.7	25.8	9.1	7.8	1.3
Copper ore	112.2	135.0	13.6	24.9	11.3	8.5	2.8
Total	11357.1	16985.7	880.4	3177.6	2297.2	1622.8	674.4
Increase	.....	5628.6	.....	2297.2	.....	Share of	increase
Percent increase	.....	49.5	.....	260.9	.....	70.6	29.4

"The ten leading countries from which imports were received in 1914 were United Kingdom, $293,661,000; Germany, $189,919,000; Canada, $160,689,000; France, $141,446,000; Cuba, $131,303,000; Japan, $107,355,000; Brazil, $101,329,000; Mexico, $92,690,000; India, $73,630,000; and Italy, $56,407,000. In 1920 there was nearly an entire change in the order, India only retaining the same rank as in 1914. Germany, Mexico and Italy were replaced by Argentina, China and the Straits Settlements, and there was a greater predominance of countries producing raw materials and food products. The ten leading countries were Cuba, $645,571,000; Canada, $537,377,000; Japan, $527,220,000; United Kingdom, $524,020,000; Brazil, $281,217,000; Argentina, $257,783,000; China, $226,887,000; Straits Settlements, $188,282,000; India, $178,951,000, and France, $172,022,000.

THE GREAT INCREASE IN AMERICAN EXPORTS

"In 1914 the exports from the United States were valued at $2,364,000,000. Owing to the war this increased rapidly after July, 1915, the total for succeeding years being $2,768,000,000 for 1915, $4,333,000,000 for 1916, $6,290,000,000 for 1917, $5,919,000,000 for 1918, $7,232,000,000 for 1919, and $8,111,000,000 for 1920.

"The exports to Europe in 1914 amounted to $1,486,000,000, or 63 per cent of the total, while those to non-European countries amounted to $878,000,000. In 1920 the exports to Europe amounted to $4,864,000,000 and to non-European countries, $3,247,000,000. The percentage of increase of exports to Europe was 227, while that to non-European countries was 370. The fact that the exports to non-European countries are increasing more rapidly than to Europe is an indication of the growing share which manufactured products have in the exports. Manufactures form the bulk of the exports to North and South America, Asia, Oceania and Africa, and only a comparatively small percentage of those sent to Europe.

"There is a great dispute as to what part of the increase in the world's trade is due to the increase in quantities and what part is due to the increase in prices. A careful analysis of the trade of nineteen leading countries, comparing an average quarter of 1913 with the first quarter of 1920, shows that only two countries imported a greater quantity in 1920, namely, Japan, with an increase of 61.2 per cent and the United States with 60.4 per cent. In all other countries there was a less quantity imported, for instance, in India, 5 per cent less; France, 6 per cent; New Zealand, 10 per cent; and Canada and the

United Kingdom, each 29 per cent. In the export trade there were four countries which exceeded the quantity in 1913, namely, Brazil, with an increase of 29.4 per cent; Argentina, 9.4 per cent; United States, 9.1 per cent, and Canada, 3.3 per cent. There was a decrease in quantity in all other countries—Switzerland, 4 per cent; New Zealand, 14 per cent; Spain, 30 per cent; India, 34 per cent, and the United Kingdom, 46 per cent. Notwithstanding the decreases in quantity the trade of all countries increased in value.

The Trade Upon a Quantity Basis

"It is difficult to make an analysis of the trade of the United States by comparing the quantities and values of the various articles,

EXPORTS FROM THE UNITED STATES
Quantities and Values
Fiscal Years 1914–1920

	Quantity Millions of Pounds		Value Millions of Dollars		Increase Millions of Dollars		
	1914	1920	1914	1920	1920 Over 1914	Due to Price	Due to Quantity
Cotton	4760.9	3543.7	610.4	1381.7	771.3	927.3	−156.0
Breadstuffs	9298.4	17827.8	162.6	794.0	631.4	482.2	149.2
Meat and dairy products	1294.7	2982.1	141.9	752.5	610.6	425.5	185.1
Mineral oil	15840.0	19508.0	152.1	426.5	274.4	237.9	36.5
Iron & steel manufactures	4667.8	9466.3	70.9	365.9	295.5	221.5	73.5
Tobacco leaf	449.7	632.7	53.9	271.9	218.0	196.0	22.0
Coal	44047.3	62232.3	59.9	172.9	113.0	87.7	25.3
Copper ingots, etc	974.7	690.3	144.8	145.2	0.4	42.6	−42.2
Sugar	50.8	1444.0	1.8	131.7	129.9	79.5	50.4
Vegetable oils	213.0	482.0	15.3	90.7	75.4	56.1	19.3
Fruits	368.2	410.0	16.8	51.6	34.8	32.9	1.9
Sole leather	29.1	71.5	7.5	35.4	27.9	17.0	10.9
Fertilizers	3448.3	2525.4	12.0	32.9	20.0	24.1	−3.2
Paraffin	186.3	360.8	6.6	31.4	24.8	18.7	6.1
Oilcake	1530.3	846.7	21.7	30.6	8.9	18.5	−9.6
Fish	122.1	179.7	9.4	30.3	20.9	16.5	4.4
Zinc	3.9	316.3	0.2	26.1	25.9	6.5	19.4
Paper	131.7	280.5	4.3	22.9	18.6	13.7	4.9
Total	87417.2	123800.1	1492.1	4794.2	3302.1	2904.2	397.9
Increase	.....	36382.9		3302.1		Share of increase	
Percent increase	.....	41.6		221.1		87.9	12.1

because for so many products the quantities are either not given at all, or, if given, are not convertible to a common unit. An attempt has been made in the following tables to include all articles which could be converted to pounds. Under the classification of chemicals all in which quantities are given are included, excepting nitrate of soda, which is separated because the quantity was greater than that of all other chemicals and therefore reduced the average price per pound. Vegetable oils were converted to pounds by allowing 7.5 pounds to the gallon; mineral oils, by taking the number of pounds per gallon according to the specific gravity of each of the different kinds of oils. Machinery has been omitted entirely from the manufactures of iron and steel because the quantity is only given in number when given at all, and only sole leather is included because the quantity of other kinds is given in square feet.

"The table of imports shows an increase of 5,628,600,000 pounds in 1920 over 1914, or 49.5 per cent, while the value of the same articles was $2,297,200,000 more, or 260.9 per cent. Of this increase, 70.6 per cent is due to increased prices and 29.4 per cent to increased quantity. In every instance, excepting rubber, the price per pound increased, and in every case, excepting chemicals and raw fibers, the quantity increased.

"The total quantity exported in 1920 was 36,382,000,000 pounds more than in 1914, or 41.6 per cent and the value was $3,302,000,000 more, or 221 per cent. Of this increase, 87.9 per cent was due to increased prices and 12.1 per cent to increased quantity. The price per pound for every article was greater in 1920 than in 1914. In the case of cotton it was three times as much; of breadstuffs, over two and a half times; of mineral oils and sugar, two and a half times; tobacco leaf, three and a half times, and coal, twice as much. The exports of cotton were 1,200,000,000 pounds less than in 1914, but owing to the increased price the total value was more than double. The quantity of copper ingots, oilcake and fertilizers exported was also less in 1920 than in 1914.

AMERICA'S NEW POSITION IN THE WORLD'S TRADE

"The position that the United States holds in the world's trade was greatly changed as a result of the war. Prior to July, 1914, the United States was a debtor country and it was estimated that about $5,000,000,000 of bonds and other securities of various corporations of the United States were held by Europeans. This meant an annual payment of $300,000,000 or $400,000,000 to foreign countries.

Today, most of these securities have been paid off, and upwards of $10,000,000,000 of bonds of other nations, both governmental and corporate, are held in this country, which means the payment of possibly over $600,000,000 annually to United States bankers.

"Again, in 1914, only 9.7 per cent of all the imports and exports of the United States was carried in its own vessels, while in 1919, thirty-six per cent was carried in United States vessels. The effect of this on foreign trade has been greatly in favor of this country, for, instead of having to pay the freight on 91 per cent of its trade it only has to pay to foreigners the freight on 64 per cent. The difference in these amounts is an added asset of United States trade. The tendency now is to increase as far as possible the carrying of merchandise in vessels floating the United States flag, and if these efforts succeed the receipts from freights will be paid to United States owners, thus lessening the amount that now goes to foreign shippers. A third factor is the large amount of gold and silver imported since the war, the excess amounting to over $5,000,000,000.

"These three factors tend to add to the embarrassment of the foreign trade of other nations, for not only the difference between the exports and imports of merchandise, which amounts to nearly $3,000,000,000, has to be made up by foreign countries in the adjustment of trade between them and the United States, but also the balance against them arising from the payment of interest on bonds, the freight to United States shipowners, and the exports of gold to this country. Owing to the inability of the foreign nations to do this, foreign moneys are largely at a discount, and the English pound, which was once the basic money of the world, has given place to the United States dollar. No one can tell when the normal conditions will be restored, nor would it be safe to prophesy the period at which the trade of the United States can be balanced by receipts from other countries.

"The sudden rise in imports during the last year, therefore, is a good feature, although the people of this country have always looked upon a balance in favor of imports as being detrimental to the country. Provided these imports were not of such a character as to compete with the manufacturing interests they would be a blessing. The United States is now in the position that the United Kingdom held for many years, namely, that of a creditor nation, in which any balance of imports against it would more than be made up by the money received on account of interest on loans abroad, but it will be hard to educate the people of the United States to a realization of that fact.

ASPECTS OF INTERNATIONAL TRADE COMPETITION

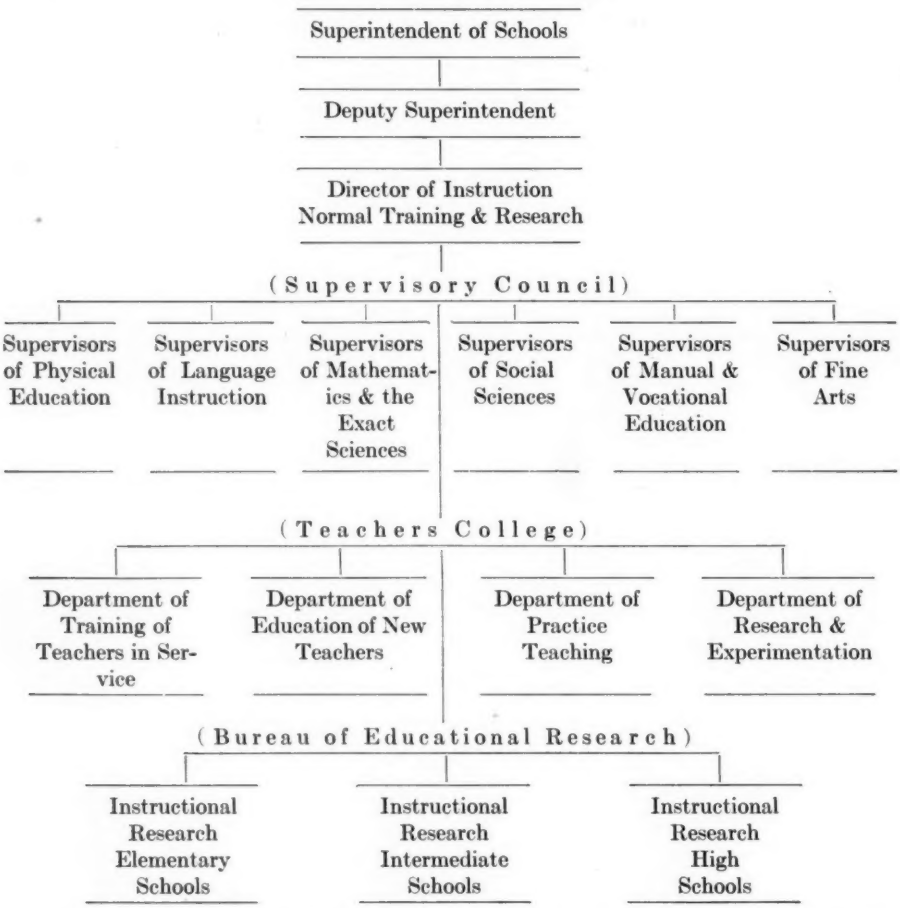
"With the usual sources of supply cut off, the United States had an opportunity of introducing its manufactures in new markets, and British consuls, trade commissioners and commercial attachés make no hesitation in saying that the United States is not only retaining, up to this time, most of this trade which it accumulated during the war, but that the former prejudice against United States manufactures and the short credit and other peculiarities of its exporters is rapidly disappearing, after the closer acquaintance with its manufactures and manufacturers, and that the United States must now be counted as a serious and permanent rival in the markets for manufactures in all parts of the world." From *Commercial America* by J. J. Macfarlane.

GEOGRAPHICAL NEWS

PLANS FOR THE SUPERVISION OF GEOGRAPHY IN THE DETROIT CITY SCHOOLS

Inquiries have come to Detroit in the last year from geography people in the country regarding the organization of the Department of Geography here. In the first place, the Department of Geography is an integral part of the larger organization of instruction. The following description of Detroit's Organization of Instruction is taken from the *Detroit Educational Bulletin*, October, 1920.

The Organization of Instruction


Superintendent of Schools
Deputy Superintendent
Director of Instruction
Normal Training & Research
(Supervisory Council)
Supervisors of Physical Education
Supervisors of Language Instruction
Supervisors of Mathematics & the Exact Sciences
Supervisors of Social Sciences
Supervisors of Manual & Vocational Education
Supervisors of Fine Arts
(Teachers College)
Department of Training of Teachers in Service
Department of Education of New Teachers
Department of Practice Teaching
Department of Research & Experimentation
(Bureau of Educational Research)
Instructional Research Elementary Schools
Instructional Research Intermediate Schools
Instructional Research High Schools

True education is much more than merely learning to read, write and figure. It results in character, ideals, citizenship. The danger is that public education in a large city school

system will degenerate into a mere series of independent and separate trainings. Specialization and size both tend to isolate the individual department or worker. When this has taken place completely, education comes to be a formalized process of acquiring a superficial cultural veneer.

To correct any tendency of this kind in the Detroit schools all agents dealing with the direction or supervision of instruction have been brought into a single unit organization for discussion and action upon their common problems. It is the function of principals and teachers to do the actual work of teaching children; it is equally the function of supervisors, teacher training agencies, and research men to devise better ways of teaching, better teachers, unity in spite of diversity, and progress instead of stagnation.

The form of the organization of the Department of Instruction is shown in the above diagram. A director of instruction, normal training and research serves to correlate and co-ordinate these three important types of activities; he acts as head of each sub-organization.

The supervisors of the city, nearly half a hundred strong, meet as a supervisory council once a week. It is their duty to know the state of instruction throughout the city, where the work needs improvement, and where able teachers have invented better ways of teaching. They report new problems to the superintendent as they arise, and under his direction revise courses of study, and make changes in methods. At the call of principals they assist in the training of teachers, and in general are the agents for the dissemination of progressive ideas. The council serves as a clearing house to prevent duplication of effort, to provide for exchange of knowledge and experience, and to insure that unity of purpose which is essential to effective work.

The function of Teachers College is to train teachers, not only new teachers, but teachers in service. In times of rapid social adjustments like the present, changes can be made in education no faster than they can be transmitted to teachers in service. The existence of a Teachers College as part of the unit of instruction means, first, that through the contributions made by the supervisors, teacher training can be made to bear directly and specifically upon the problems of education in Detroit; second, that any teacher conscious of a need for assistance can obtain it quickly and without cost; and, third, that the services of persons professionally competent are at all times available for the solution of educational problems.

The Bureau of Educational Research constantly surveys and measures the work done in the schools. It furnishes the data upon which supervisors can plan their activities, and devises the experiments necessary to settle disputed points. It makes it certain that mere fads and opinions shall not be promulgated under the guise of progress, and that scientific, impersonal evaluation is substituted for guess work.

Taken as a whole the Department of Instruction is the logical complement of the processes of standardization and centralization essential to the successful operation of a large school system. Its attention is fixed directly and appraisingly upon the effect of the educational process upon the children. Its specific goal is progress, and just as far as it is itself efficient, it is the official agent charged with the responsibility for bringing into being **better** citizens, a **better** Detroit, and a **better** nation.

In this organization the Geography Supervisor is one of the supervisors of the Social Sciences. As such, his duties come under three chief heads:

1. Making surveys of society to determine what the demands in geography teaching are
2. Making studies in the school room to find out what is needed there

3. Putting the material based upon these studies into such shape that it will be of most value to the busy teacher in the school room

At present the organization for carrying out the above duties consists of the supervisor, a member of the Teachers' College Staff, and a teacher released from her class-room duties.

The work during the past two years has consisted chiefly in helping to build up necessary machinery. Without this machinery each supervisor was working for his own department and conscientious people often found themselves at cross purposes.

The chief characteristic of the new order of things lies in the fact that the supervisor has no administrative duties. The administrative duties are entirely in the hands of an assistant superintendent and district principals, who work under his direction. There is a sharp distinction drawn between administration and supervision. The supervisor must keep his hands off administration.

The steps which the supervisor takes in making his units of instruction effective throughout the city are as follows:

1. Survey needs of society
2. Survey needs of schools
3. Formulation of problem
4. Gathering of materials
5. Experimentation in experimental rooms
6. Experimentation under city conditions
7. Recommendations to administration (tests and standards)

One of the features of this plan of supervision which should be mentioned, is the difference in relationship between the principal and the supervisor, which is brought about by it. Under this plan, the responsibility for results in his own building is put up to the principal, and he is checked on these results by the administrative end of the organization, not by the supervisor. On the other hand, it is the duty of the Supervisory Department to so definitely outline the work that the principal can administrate it and check his own results.

The day of the subject specialist, who knows little of educational theory outside his narrow field, is fast passing. The new day is dawning, when supervisors must be broadly trained educators, who know how to work in an organization.

BURTON A. BARNS,
Supervisor of Geography

MICHIGAN STATE TEACHERS' ASSOCIATION

GEOGRAPHY SECTION

(Affiliated with the National Council of Geography Teachers)

ROCHESTER FIELD MEET, NOV. 6, 1920[1]

Morning and early afternoon

Automobiles will be provided for the members of the Section by the courtesy of the people of Rochester for an excursion to points of geographic interest in the neighborhood. Mr. C. W. Case will have charge of the excursion as marshal and Miss Eva Barwise will direct the visits to points of historical interest.

The start will be made from the High School building at 9:50. Boy guides will meet trains.

THE EXCURSION takes in the valleys of the Clinton River and Paint Creek, the terraces and power sites of the village, the old trans-state canal at Yates and above, the Western Knitting Mills, the Parke-Davis farms, the Sand and Brick Factory, and historic sites in the village.

An interruption will be made at noon for a Complimentary Lunch, offered to the visitors by the people of Rochester at the Congregational Church.

An exhibition of Rochester Heirlooms and Antiquities by the Rochester Woman's Club at the High School building will be ready after the Excursion.

At 3:30 P.M. or soon after an Indoor Program will be opened with

Greetings from Rochester, by Hon. G. A. Hemple

The Local Physiography, by Supt. F. W. Frostic of Wyandotte

Canal, Road, and Railway, by Supt. W. E. Parker and Miss Hilda Hankinson of Rochester

Rochester Plants, by Branson Walpole of Ypsilanti

The Mills and Factories, by Miss Florence Ackerley of Rochester

Closing Remarks, by Prof. Mark Jefferson, of Ypsilanti.

RAIN WILL NOT PREVENT, THOUGH IT MAY LIMIT, THE OUT-OF-DOOR EXCURSION

November 6 was a gala day at Rochester, Michigan. It dawned cold but bright. At ten o'clock 120 visiting teachers of geography, school superintendents, and interested local people started in twenty-three automobiles, provided by the townsfolk, on a four hour drive through the neighborhood of Rochester. The excursions were broken into morning and afternoon groups by an excellent luncheon which the village offered to the visitors in appreciation of their visit, $100 having been raised for this purpose.

From four or five distant points the party viewed the village perched on its terraces between Clinton River and Paint Creek with the strong hills of the Defiance Moraine in the Northwest and the slightly

[1] The program here given will indicate to others how such a meeting may be planned. The Michigan Council of Geography Teachers is to be congratulated on its success in holding this type of meeting. It indicates an interest and enthusiasm that mean much to geography in Michigan. The success of this meeting should prove an incentive worthy of emulation by other State Directors.—EDITOR.

lower ones of the Birmingham Moraine to the southeast. Superintendent Frostic of Wyandotte pointed out the physiographic details, and Mr. Bronson Walpole of Ypsilanti imparted to the members of the party a good deal of his eager enthusiasm for his plant friends.

A fascinating remnant of early Michigan is preserved near Rochester in the old canal that the state started to build from Lake St. Claire to Kalamazoo. This was in 1837 at the time the state was also undertaking the Michigan Central Railroad. What was constructed of the canal is still in use as a mill-race between Rochester and Utica. This was viewed from high bluffs and where the canal crosses the river in an aqueduct.

Tho it clouded up in the afternoon the day held good. The air was bracing and all brought keen appetites to lunch. From the afternoon drive they gathered at 3:30 P. M. for the two hour session at the high school under the presidency of Professor Jefferson, who had arranged the meeting as Michigan representative of the National Council of Geography Teachers.

Following the address of welcome the transportation, history and industries of Rochester, together with the physiography and plant life of the surrounding country were fully discussed thus amplifying the well illustrated field work. Professor Jefferson closed with an expression of the deep appreciation the visitors felt for their hospitable entertainment.

The picture of Rochester that results is a settlement of pioneers who have stumbled painfully thru the deep mud of the old lake-floor beds near Detroit—a twenty mile journey that took them three days —to the well-drained gravel terrace between Clinton River and Paint Creek. Both of these streams fall rapidly and yielded water power that was harnessed immediately to saw lumber and grind grain.

A booklet of the home geography of Rochester will be prepared from the materials gathered and published by the Rochester school board. It is hoped that similar meetings may be held to illustrate the geography of other Michigan towns.

AIRPLANE VIEWS OF THE ALPS

The Swiss Aeronautical Company "Ad Astra-Aero" of Zürich is publishing a remarkable series of airplane photographs, about 4½ by 6½ inches in size, of the Swiss Alps taken at altitudes of from 500 to 5000 meters. Most of them are excellent in technique and many

are marvelous in their revelation of mountain and valley forms. They give the impression of an intimate approach to the Alpine monarchs, which as seen in bird's-eye views have the appearance of delicately carved models. From a package of 284 prints a selection of about 100 thoroly good views is here made in three groups, of which the better are indicated by bold face numbers, and the best by bold face numbers followed by an exclamation point. Snow-covered winter views are marked "w." The price of the views is one dollar each, with a reduction if large lots are ordered.

Some of the broader, lofty prospects disclose what might be called a wave-tossed topography, which on closer inspection is seen to consist of deep carved valleys between residual peaks and ridges, as in **317!**Engelberger Alps, **481!**Mönch and Finsteraarhorn, 1455 the mountains east of the Rhine, **1369** Piz Aul group (without snow), **265w** the Glärnisch from over Einsiedeln, **1549w** Piz Languard group, and 1370 Albula group. Certain of the views exhibit reduced remnants of the colossal deformations into which the mountain-making strata have been thrust; thus a fine monocline rises near **1264** Gemmi Pass, an open syncline is seen in **255!** the Glärnisch, **248** Säntis exhibits a heavy series of strongly tilted and flexed beds, 250 north of the Mürtschenstock has a well marked flexure, and **1522** south of the same mountain shows strata in great disorder; **150** Altmann, **1152!** Wildhauserschafberg, and **149** Säntis exhibit nearly vertical strata (the first two without snow). A wild confusion of summits, a sort of mountain chaos, is seen around the 1463 Niederenalp, **1521** Mürtschenstock, **977!** Engelberger group and **1515!w** Piz Vadret.

A large variety of glacial views is afforded. Heavy snow fields are shown on the broad summit of **1016!** and 1046 Monte Rosa; steep névé fields, strongly crevassed, lie beneath high summits, as in **1027!** Aletschhorn, and 867 Piz Bernina; a cirque reservoir feeds a cascading glacier with many séracs in **400** Jungfrau, **390!** Ried glacier, and 379 Festi glacier. The whole length of a middle-sized ice-stream is shown in **381!** Mittelaletsch glacier, and **1268** Corbassière glacier. Two cirque reservoirs supply **1513!w** the Morteratsch glacier. Very imposing are the views of **894!** Argentière glacier and of **1157!** the Mer de Glace with its moraines and dirt bands. The latter view unfortunately does not show the manner in which the mouth of the Mer de Glace side-trough hangs over the main trough of the valley of Chamounix. The steep descent of the Bossons and Taconnaz glaciers is shown in 1274 Mt. Blanc.

The consequences of glacial erosion are strikingly shown in a whole series of forms from central summits to piedmont lakes. Peaks sharpened by retrogressive erosion of cirques are seen in **374!**, **1010**, 1007 Finsteraarhorn, and **461** Bietschhorn; sharpened ridges between broadened troughs are admirably seen in **485!** Schreckhorn and 1554**w** Albula pass; an imperfectly consumed ridge is shown in 154 Churfirsten. Needles of vertically jointed schists are exhibited in the sharpened walls or arêtes which enclose and subdivide the head cirques of **1163!**, 854 Argentière glacier and **1275!** Mer de Glace; these contrast strongly with the dome-like form of the unconsumed summit of **1108** Mt. Blanc and also of **1016**, 1046 Monte Rosa above noted; here retrogressive erosion has not been sufficient to sharpen the summits.

The over-deepening of a main glacier trough with respect to the hanging side troughs is very apparent in a view **877** across the Roseg valley to the Bernina group, and in 991 across Val Ferret to Mt. Blanc. The closed head of a trough beneath contributing slopes is seen under **371** Gelmenhörner; the trough of the upper Aar **281!** shows the meadow basin of Innertkirchen, where two tributary troughs enter from east and west, and the heavy rock sill next down stream where the famous river gorge is cut; **1559!** the Roseg trough still has a glacier in its upper end, and an apparent landslide has been cut thru near its middle; other excellent examples are **1527** the Weisstannen trough, **394!** the Zermatt trough beneath the Matterhorn, 325, **1448**, **1483!** the Linth valley (the last view shows an airplane in the high fore-air), and 1380 Hinterrhein valley-trough. Broadly aggraded troughs are seen in 1375 Rhine valley near Chur, and **151!** the same farther down stream (this shows an isolated terminal remnant of a greatly eroded spur); the trenched floor of a hanging side trough is seen in **377a!** Brieg valley near its junction with the deeper Rhone trough. Different parts of the Rhone trough are given in **376**, 212, **213!**, 210, **211!** The broad floor of the uppermost Inn valley is shown in **1500!w** Celerina and Samaden; and the same with its little lakes is shown in 862, **1497w** Silvaplana. Larger lakes are illustrated by **1449!**, 1450 Wallensee, and **329!**, 285 Brienz-Thun. Deltas are seen at the head of 1347 Lago Maggiore, and at the mouth of the Kander in **1213!** Lake Thun. Some of the less lofty mountains with little snow exhibit many lines of down-streaming waste, as **1353!** near Tödi, **897** Aroserrothhorn, 898 Piz d'Aela, and 889 Bevers valley. The cataract of the Rhine, 929, near Schaffhausen is rather dark. Two views of Jura arches and troughs, 1408, 1309, include the combe of Moutier, but are too dark.

One of the most remarkable features of the collection is the series of bird's-eye views of cities and towns: **430!**, **1218** Bern from heights of 3000 and 1000 meters, 1396, 1405 Basel from 800 and 300 meters, **161!**, **241** Luzern from 4000 and 300 meters, 167, 672, Zürich from 2500 and 1000 meters, **738**, Geneva, **710!** Fribourg, 440 Aarau, **506** Zafingen, **1184** Thun, 628 Winterthur, **493!** Aarburg, 806 Morges, 1167 Murten, 1146 Appenzell, **215** Bulle, **858!** Samaden, and 1510**w** St. Moritz. If lantern slides of these and similar views could be exhibited to children's classes in geography it would be easy to show that there is more to learn about a city than its name and position.

The educational value of the views in general would be increased if they were taken in series; for example, following the general view of the Mer de Glace, **1157**, several closer views, showing in succession the hanging attitude of the end of the glacier over the valley of Chamounix, the details of the dirt bands on the terminal part of the glacier, the confluence of its two chief branches, the several cirques or névé reservoirs, and finally details of the enclosing and subdividing arêtes. Perhaps the absence of some of these closer views is to be explained by the possibility of their being taken from fixed points on near-by mountains; but from no such points can photographs give the perfect bird's-eye effect of airplane views.

W. M. DAVIS.

Cambridge, Mass., Dec., 1920.

STATE SUPERVISOR OF GEOGRAPHY FOR PENNSYLVANIA

Miss Erna Grassmuck has recently been appointed Supervisor of Geography for the entire state of Pennsylvania. State Superintendent Finnegan of Pennsylvania is making a thoro reorganization of educational work of that state and among other forward steps which he has taken is this selection of a specialist to supervise and direct the work of geography in the state.

Miss Grassmuck has been for several years in charge of certain phases of geography work in the Cleveland Training School where she made a reputation for herself. Before going to Cleveland she was instructor in the Philadelphia Normal School.

It is an encouraging sign when a State Department of Education selects a specialist of this kind and attaches a salary of $4500 to $5,000 to the position. It is an example which other states should follow.

GEOGRAPHICAL PUBLICATIONS

Myra Banks. **European Geography. A Brief Survey of the Continent.** The *National School Digest*, September, 1920, p. 36.

W. W. Atwood. **The Regional Treatment of Geography.** *Visual Education*, June, 1920, p. 21.

For another article by the same author see the January number.

W. W. Atwood. **Habitat Groups in the Teaching of Geography.** 11 ills. *Visual Education*, May, 1920, p. 30.

The illustrations cover the following habitats: Eskimo, lumbering camp in Maine (2 ills.), Japan (3 ills.), American Indian, Holland (2 ills.), desert life (2 ills.).

Frederick G. Clapp. **Along and Across the Great Wall of China.** Map, ills. The *Geog. Rev.*, June, 1920, p. 221.

Clive Day. **The Pre-War Commerce and the Commercial Approaches of the Balkan Peninsula.** Maps, diagrs. The *Geog. Rev.*, June, 1920, p. 277.

Enrique Naranjo M. **The Magdalena River.** Map, ills. *Bull. Pan American Union*, September, 1920, p. 248.

G. F. Loughlin and Martha B. Clark. **Mineral Resources of the United States in 1919.** U. S. Geological Survey, 1920.

This is a preliminary summary for the year 1919 and should be very useful to teachers.

Harriet Chalmers Adams. **Rio de Janeiro in the Land of Lure.** Map, ills. The *Nat. Geog. Mag.*, Sept., 1920, p. 165.

Henry Edward Crampton. **Kaieteur and Roraima: The Great Falls and the Great Mountain of the Guianas.** Map, ills. The *Nat. Geog. Mag.*, Sept., 1920, p. 227.

Paul Gooding. **Tahiti: A Playground of Nature.** Map, ills. The *Nat. Geog. Mag.*, October, 1920, p. 301.

Frank H. Simonds. **The Saving of Poland.** *Rev. of Rev.*, Oct., 1920, p. 371.

William E. Smythe. **Alaska's Place in the Sun.** 6 photos. *Rev. of Rev.*, 1920, p. 385.

John K. Barnes. **Deterding—The Napoleon of the Oil World.** 2 maps. *W. Work*, Oct., 1920, p. 551.

The story of the rise of the Royal Dutch Company from a small concern of the Dutch East Indies to world wide producer and marketer.

Lathrop Stoddard. **Japanese Issue in California.** 2 maps, 11 photos. *W. Work*, Oct., 1920, p. 585.